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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>		Application No.	09/517,818
		Filing Date	March 2, 2000
		First Named Inventor	Ran Oz
		Art Unit	2614
		Examiner Name	Ma, Johnny
Total Number of Pages in This Submission	48	Attorney Docket Number	5079P002

ENCLOSURES (check all that apply)		
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Signature	<i>Sanjeet Dutta</i>
Date	December 15, 2003

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# FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$)  
165.00

## Complete if Known

Application Number 09/517,818  
Filing Date March 2, 2000  
First Named Inventor Ran Oz  
Examiner Name Ma, Johnny  
Group/Art Unit 2614  
Attorney Docket No. 5079P002

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## METHOD OF PAYMENT (check all that apply)

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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)				(\$)	

### 2. EXTRA CLAIM FEES

Total Claims  - 22\* =  X  =   
Independent Claims  - 3 =  X  =   
Multiple Dependent  =

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple Dependent claim, if not paid	
1204	86	2204	43	**Reissue independent claims over original patent	
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2)				(\$)	

\*or number previously paid, if greater, For Reissues, see below

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
2053	130	2053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	1,210	2255	605	Extension for reply within fifth month	
1404	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	165.00
1403	290	2403	145	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	1809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
Other fee (specify)					
SUBTOTAL (3)				(\$)	165.00

\* Reduced by Basic Filing Fee Paid

## SUBMITTED BY

Name (Print/Type) Sanjeet K. Dutta

Signature

Sanjeet Dutta

Registration No.  
(Attorney/Agent)

46,145

Telephone

(408) 947-8200

Date

12/15/03



Attorney's Docket No.: 5079P002

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of:

Ran Oz, et al.

Application No.: 09/517,818

Filed: March 2, 2000

For: METHOD AND APPARATUS FOR USING  
DELAY TIME DURING SWITCHING EVENTS TO  
DISPLAY PREVIOUSLY STORED INFORMATION  
ELEMENTS (AS AMENDED)

Examiner: Ma, Johnny.

Art Unit: 2614

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APPEAL BRIEF  
IN SUPPORT OF APPELLANTS' APPEAL  
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

This Brief is submitted in triplicate in support of this appeal from a final decision of the Examiner, mailed July 17, 2003, and a subsequent Advisory Action dated November 19, 2003. Consideration of this appeal by the Board of Patent Appeals and Interferences for allowance of the above-captioned patent application is respectfully requested.

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## **I. REAL PARTY IN INTEREST**

The real party in interest is BigBand Networks, an Israeli corporation having a place of business at 3 Azriely Towers, Tel-Aviv, Israel.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellant is not aware of any related appeals or interferences.

## **III. STATUS OF CLAIMS**

Claims 23, 2, 3, 5, 8, and 24-39 are currently pending, have been finally rejected and are the subject of this appeal.

## **IV. STATUS OF AMENDMENTS**

There are no currently pending amendments.

## **V. SUMMARY**

### **A. Summary of Invention**

The use of a digital set-top box (STB) introduces at least a one to two second delay time when a customer switches from one channel to another, and this delay time is due to channel tuning time, MPEG transport parsing initialization, and MPEG program internal structure. The delay time occurs, for example, when a viewer specifies a new channel number or presses the up/down arrows on a remote control coupled to the digital STB. There also is a delay associated with the thin-client displaying an electronic program guide in response to a customer or viewer request for the guide. The guide enables the viewer to view information on the various programs available on the various channels before selecting a preferred program. Although any delay time is typically on the order of one to two seconds, it can increase when a new program is added to a channel by the cable headend, such that a two to four second delay occurs. Basically, it takes a few seconds for decoder in the digital STB to process a new media stream before displaying the multimedia presentation contained within the stream. These types of digital STB-related or digital STB-introduced delays generally are referred to hereinafter as "zap time." During zap time, the viewer sees small squares (blocks) of the target video program being overlaid on top of the prior video program on the screen, until the prior video program is fully replaced with the target video

program.

The invention relates to methods and systems for displaying data to the viewer during zap time. This displayed data can include, for example, one or more of the following: advertising; information about the next/target program or channel selected; a window showing a segment of the target program that is transmitted over the target channel; personal information associated with the viewer (e.g., notification that one or more electronic mail messages have arrived, stock prices of securities in the viewer's portfolio, etc.) and/or based on the viewer's profile (e.g., recipes for cooking enthusiasts, news clips from preferred sources, advertisements of particular interest, etc.); and local and regional information (e.g., weather forecasts, etc.) The displayed data also can include interactive elements that allow the viewer to request additional data for display on the screen. In addition, the interactive elements can correspond to a one-way transaction, such as when modifying the viewer's profile to block certain types of data. Specification at p. 2, ll. 5-21.

Claims 23 and 31 are presented below with elements read on the figures of the drawings as suggested in MPEP 1206.

23. A method, comprising:  
periodically downloading from a server (Fig. 1, 102) selected data sets (Fig. 2, 402) according to user profile information, the selected data sets representing information elements for display to a user during switching events;  
displaying a first one of the information elements (Fig. 4, 408) in response to initiation of a first switching event (Fig. 4, 406); and  
discontinuing the display of the first one of the information elements (Fig. 4, 416) and displaying the data stream information from the server when it becomes available for such display (Fig. 4, 418), unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements (Fig. 4, 410) in which case displaying the data stream information from the server is delayed (Fig. 4, 412) until termination of the interactive transaction session (Fig. 4, 414) or expiration of a predetermined period of inactivity by the user.

31. A system, comprising:  
a server (Fig. 1, 102) configured to provide a data stream transmission;  
and  
a digital set top box (Fig. 1, 102) configured to (i) periodically download from the server (Fig. 1, 102) selected data sets (Fig. 4, 402) according to user profile information, the selected data sets being included within the data stream and representing information elements for display to a user during switching events; (ii) display a first one of the information elements (Fig. 4, 408) in response to initiation of a first switching

event (Fig. 4, 406); and (iii) discontinue the display of the first one of the information elements (Fig. 4, 416) and displaying the data stream information from the server when it becomes available for such display (Fig. 4, 418), unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element (Fig. 4, 410) associated with the first one of the information elements in which case displaying the data stream information from the server is delayed (Fig. 4, 412) until termination of the interactive transaction session (Fig. 4, 414) or expiration of a predetermined period of inactivity by the user.

As stated in MPEP 1206, the claims are not to be limited to this embodiment by such reading.

### **B. Summary of Rejections**

Claims 23, 2, 3, 8, 24-31, 34-36, and 39 stand rejected under 35 USC 103(a) as allegedly being unpatentable over Grossman et al. (US patent no. 5,907,321) in view of Picco et al. (US patent no. 6,029,045), and Kitsukawa et al. (US patent no. 6,282,713).

Claims 5, 32, and 33 stand rejected under 35 USC 103(a) as allegedly being unpatentable over Grossman et al. (US patent no. 5,907,321) in view of Picco et al. (US patent no. 6,029,045), Kitsukawa et al. (US patent no. 6,282,713), and Nathan et al. (US patent no. 6,182,126).

Claim 7 stands rejected under 35 USC 103(a) as allegedly being unpatentable over Grossman et al. (US patent no. 5,907,321) in further view of Picco et al. (US patent no. 6,029,045), Kitsukawa et al. (US patent no. 6,282,713), and Tsuria (US 5,786,845).

### **Summary of the References**

Grossman is concerned with displaying advertising information in response to the determination of a channel change (Grossman 2: 37-40). Picco is concerned with permitting a broadcaster to deliver localized content (e.g., commercials targeted for a particular area of the country) over a national transmission medium, such as a satellite (Picco 2: 49-55). Kitsukawa is directed to on-demand electronic advertising, where the viewer is alerted when advertising information is available for an item displayed in a scene of the television program broadcast (Kitsukawa Abstract). Nathan is directed at home digital audiovisual information recording and reproduction apparatus (Nathan 1:29-30), which allows the user to select and purchase a musical piece (Nathan: 12: 8-19). Tsuria describes a system in which



advertisements may be displayed during the channel changing interval (Tsuria, Abstract, 3: 54-59).

## **VI. ISSUES**

- A. Whether Grossman, Picco, and Kitsukawa were properly combined to substantiate the 35 U.S.C. 103 rejection of claims 23, 2, 3, 8, 24-30
1. Whether there is a suggestion or motivation to combine Picco, directed at permitting a broadcaster to deliver localized content to be inserted into the programming data, and Grossman, directed at enabling a cable subscriber to allow the display of advertisements during an interchannel interval (ICI)?
  2. Whether there is a reasonable expectation of success if Picco, where the displaying of the local content in Picco is dependent on the availability of the local content space within the compressed digital data stream, is combined with Grossman, where there is no mechanism to identify local content space?
  3. Whether there is a suggestion or motivation to combine Grossman, directed at utilizing an ICI, where ordinarily no image is displayed, with Kitsukawa, directed at utilizing the images already displayed in the scenes of television programs to provide on-demand advertisements for items used in scenes of television programs?
- B. Whether the 35 U.S.C. 103 rejection of claim 23 is erroneous, where Kitsukawa fails to disclose a delay of the display of the data stream information until termination of the interactive session as required by claim 23?
- C. Whether Grossman, directed at displaying visual images in response to the determination of a channel change, was properly combined with Nathan, directed at recording and reproduction of audiovisual information, to substantiate the 35 U.S.C. 103 rejection of claims 5, 32, and 33?
- D. Whether the 35 U.S.C. 103 rejection of claim 7 is erroneous if the combination of Picco and Grossman, and Grossman and Kitsukawa is improper?

## VII. GROUPING OF CLAIMS

For the purposes of this appeal, claims 23, 2, 3, 8, 24-31, and 34-39 stand or fall together.

Claims 5, 32, and 33 stand or fall together, but are separately patentable from the remaining claims, because claims 5, 32, and 33 require a limitation of storing those of the selected data sets associated with the first information element in a buffer of a digital set top box and storing others of the selected data sets associated with others of the information elements in a memory, which is not present in the remaining claims and not disclosed in the references relied on to reject the remaining claims.

## VIII. ARGUMENT

### A. Grossman, Picco, and Kitsukawa were erroneously combined to substantiate the 35 U.S.C. 103 rejection of claims 23, 2, 3, 8, and 24-30

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

#### 1. There is no suggestion or motivation to combine Picco, directed at permitting a broadcaster to deliver localized content to be inserted into the programming data, and Grossman, directed at enabling a cable subscriber to allow the display of advertisements during an interchannel interval (ICI)

Because Grossman does not specifically disclose either selected data sets according to user profile information, or periodically downloading from a server selected datasets (Office Action Paper 10, p. 4), the Office Action combined Grossman with Picco to show “periodically downloading from a server selected data sets according to user profile information, the selected data sets representing information elements for display to a user during switching events, and displaying a first one of the information

elements in response to initiation of a first switching event” required by claim 23. To determine whether this combination is proper, the source of the suggestion or motivation to combine the references must be established. If the suggestion or motivation to combine Picco and Grossman is dictated solely by the invention of claim 23, such combination is improper. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Although Picco and Grossman both discuss applying transmitted advertising information to a television receiver display (Grossman, 1: 8-13; Picco, Fig.1, 4: 66-67, 5: 1-22), Picco and Grossman are directed at unrelated problems. In fact, the problem addressed by Picco and the problem addressed by Grossman are manifested during mutually exclusive circumstances. For example, Picco allows individualized local content to be inserted into the programming data stream (Picco, Abstract; 3: 43-62; 6: 20-23, 38-40), i.e., while a user is viewing a selected channel. In contrast, Grossman discloses the display of visual images when a user *changes* the channels, during a delay between the displays of sequentially displayed channels (Grossman 3: 41-55). Thus, because the problems addressed by Grossman and Picco are distinct and unrelated, there is no suggestion or motivation to combine the references that can be found in the references themselves.

The Advisory Action states: “The motivation is found in the knowledge generally available to one of ordinary skill in the art for the purpose of providing advertisements during channel changes that users may be interested in”. It is unclear, however, what particular “knowledge” is being referred to. The U.S. Court of Appeals for the Federal Circuit has cautioned against such rote invocation of “ordinary skill in the art” by specifically indicating that when an obviousness rejection is made, an examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor *and with no knowledge of the claimed invention*, would invoke the use of such elements in the manner claimed. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). Merely indicating, as in the present Office Action, that the claimed invention would be obvious to one of ordinary skill in the art is inadequate. *Id.* Instead, what is needed is a showing of motivation, either from the references themselves or the knowledge of those of ordinary skill in the art, for the combination being relied upon. *Id.*

In the present case, rather than reciting the required motivating factors the Office Action merely concludes that motivation to combine the references is found in the knowledge generally available to one of ordinary skill in the art, and thus it would have been obvious to arrive at the claimed invention. This bare bones analysis is not sufficient to support the present rejection. The burden is on the Examiner to show why one would be so motivated as to come up with the combination. *Rouffet* at 1357-1358 (“If such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields the [Patent Office] could routinely identify the prior art elements in an application, invoke the lofty

level of skill, and rest its case for rejection. To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.")

The motivation to combine Grossman and Picco is suggested solely by hindsight in view of the present "method, comprising: periodically downloading from a server selected data sets according to user profile information, the selected data sets representing information elements for display to a user during switching events; displaying a first one of the information elements in response to initiation of a first switching event; and discontinuing the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display, unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements in which case displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user", i.e., the invention of claim 23. Accordingly, the present rejections are legally inadequate and should be reversed.

**2. There is no reasonable expectation of success if Picco, where the displaying of the local content is dependent on the availability of the local content space within the compressed digital data stream, is combined with Grossman, where there is no mechanism to identify local content space**

Even if the teachings of the two cited references were combined, there is no reasonable expectation of success, because in Picco the local content is inserted into the programming data stream *only* when the local content space is identified within the compressed digital data stream (Picco 6: 20-23, 38-40), and thus displaying of local content in Picco is dependent on the availability of the local content space within the compressed digital data stream. There is no indication in Grossman that there is a mechanism to receive, generate, or handle individualized local content such as in Picco. For example, because an ICI is an event that cannot be predicted, there is no time certain at which the local content discussed in Picco could be inserted.

On the other hand, there is no indication that a system in Picco can be adapted to be used to display local content during the ICI as well as or instead of during the programming. On the contrary, the local content provided in Picco depends on identifying a local content space within the compressed digital data stream (Picco, 6: 37-40). Thus, a natural result of the Grossman-Pico combination does not yield the operation of "periodically downloading from a server selected data sets according to user profile information, the selected data sets representing information elements for display to a user during switching events", as required by claim 23.

**3. There is no suggestion or motivation to combine Grossman, directed at utilizing an ICI, where ordinarily no image is displayed, with Kitsukawa, directed at utilizing the images already displayed in the scenes of television programs to provide on-demand advertisements for items used in scenes of television programs**

Because Grossman does not specifically disclose an interactive transaction session (Office Action Paper 10, p. 4), the Office Action combined Grossman and Picco with Kitsukawa to show “an interactive transaction session” required by claim 23. To determine whether this combination is proper, the source of the suggestion or motivation to combine the references must be established. If the suggestion or motivation to combine Grossman and Kitsukawa is dictated solely by the invention of claim 23, such combination is improper. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Kitsukawa discloses on-screen advertisements, which are superimposed over a television broadcast, and which include interactive elements, selectable to initiate an interactive session (Kitsukawa et al. Abstract). Kitsukawa also discloses providing coupon information for items used in scenes of television programs and commercials (Kitsukawa et al. 10:43-50). However, it is questionable whether one of ordinary skill in the art would have realized that such use of information elements with interactive elements could have been adapted for use in the system taught by Grossman. For example, Grossman is concerned with the display of information during times other than when a television picture is being displayed, i.e., during the delay period between the displays of sequentially displayed channels (Grossman et al. 3: 46-55). Kitsukawa, on the other hand, is concerned with displaying information superimposed on a television picture (Kitsukawa et al. 10:43-50).

The Advisory Action submits that it would have been obvious to modify the Grossman zap time with the Kitsukawa interactive session for the purpose of providing advertisements with readily available supplemental information (Advisory Action Paper 13, p. 6). Although both references disclose displaying advertisements on a television receiver, the problems addressed by Grossman and Kitsukawa are distinct and unrelated. Grossman is concerned with utilizing the ICI, where ordinarily no image is displayed, to provide information to the user (Grossman et al. 3: 46-55). Kitsukawa, on the other hand, is concerned with utilizing the images already displayed in the scenes of television programs to provide on-demand advertisements for items used in scenes of television programs (Kitsukawa et al. 10:43-50). There is no indication in Grossman that the information displayed when the user changes channels is in any way dependent on or related to the content of the television picture, the sole criteria for information selection disclosed by Kitsukawa (Kitsukawa et al. 10:43-50). These references thus relate to quite distinct problems and solutions thereto and offer no rationale for their combination. For at least these reasons,

one of ordinary skill in the art would not have been motivated to make the combination suggested by the examiner because the references themselves do not suggest such a combination and the problems being addressed therein are not at all similar.

**B. The 35 U.S.C. 103 rejection of claim 23 is erroneous, because Kitsukawa fails to disclose a delay of the display of the data stream information until termination of the interactive session as required by claim 23**

The Advisory Action suggests that the process of “displaying the data stream information from the server is delayed until termination of the interactive transaction session” as recited in claim 23 is inherent in the Grossman and Kitsukawa combination, “since the coupon information would obstruct program display until display of coupon information is completed (Advisory Action, Paper 13, p. 4). Although Kitsukawa discloses that the coupon information may be displayed by superimposing the information over the broadcast of the television program on the screen (Kitsukawa, 11: 24-26), a delay of the display of the of the data stream information until termination of the interactive transaction is not inherent. There is no indication in Kitsukawa that the superimposed coupon information does not allow the user to continue viewing the advertisement, similar to where superimposed movie credits do not necessarily prevent the viewer to continue viewing the movie picture. On the contrary, Kitsukawa discloses displaying coupon and advertisement information alerts *along with a sequence of displays of program scenes* (Kitsukawa, 3:35-57), which is distinct from *delaying* the data stream as required by claim 23.

Because neither of the references relied upon in the Office Actions of 7/17/03 and 11/19/03, or a combination of such references, disclose “displaying the data stream information from the server is delayed until termination of the interactive transaction session” as recited in claim 23, claim 23 and its dependent claims are patentable over these references.

**C. The 35 U.S.C. 103 rejection of claims 5, 32, and 33 is erroneous, because there is no suggestion or motivation to combine Grossman, directed at displaying visual images in response to the determination of a channel change, with Nathan, directed at recording and reproduction of audiovisual information**

Although Nathan is cited for teaching the storing of one data set in a buffer and another data set in a memory, wherein the data set in the buffer is replaced by the one in memory after the first data set in the buffer is transmitted for display, a combination of Nathan and Grossman does not satisfy the *Graham* factual inquiry (MPEP 2141), as there is no suggestion or motivation to combine the references (see also

MPEP 2143.01). Specifically, Nathan's disclosure relates to home digital audiovisual information recording and reproduction apparatus (Nathan 1:29-30), which allows the user to select and purchase a musical piece (Nathan: 12: 8-19). Thus, Nathan's disclosure is unrelated to concerns such as utilizing the zap time, a problem specific to the field of cable television systems. Grossman, on the other hand, addresses displaying visual images in response to the determination of a channel change (Grossman 4: 55-61), and is not concerned with enabling a user to acquire and reproduce audiovisual data selections using a television screen and a stereo system. Thus, one of ordinary skill in the art would not have been motivated to make the combination suggested by the examiner because the references themselves do not suggest such a combination and the problems being addressed therein are distinct.

The motivation to combine Grossman and Nathan is suggested solely by hindsight in view of "a method, comprising: periodically downloading from a server selected data sets according to user profile information, the selected data sets representing information elements for display to a user during switching events; displaying a first one of the information elements in response to initiation of a first switching event; and discontinuing the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display, unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements in which case displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user, wherein downloading the selected data sets comprises storing those of the selected data sets associated with the first information element in a buffer of a digital set top box and storing others of the selected data sets associated with others of the information elements in a memory of the digital set top box, wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data sets in the buffer of the digital set top box once the first information element is displayed.", i.e. the invention of claim 5. Thus, the combination of references is improper.

**D. The 35 U.S.C. 103 rejection of claim 7 is erroneous because the combination of Grossman, Picco, Kitsukawa, and Tsuria is improper**

The Office Action seeks to obviate claim 7 by combining the teachings of Grossman, Picco, Kitsukawa, and Tsuria (Office Action, Paper 10, p. 23). However, there is no suggestion or motivation to combine these references for at least the reasons articulated above with respect to the combination of Picco and Grossman, and with respect to the combination of Grossman with Kitsukawa, as the references themselves do not suggest such a combination and the problems being addressed therein are distinct. Because the combination of Grossman, Picco, and Kitsukawa is improper, the combination of these

references with Tsuria is also improper.

### IX. CONCLUSION

For the foregoing reasons, Appellants respectfully request reversal of the Examiner's rejections as set forth in the Final Office Action and request that the Board direct allowance of claims 23, 2, 3, 5, 8, and 24-39. If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, CA 90025  
(408) 720-8598

  
Sanjeet K. Dutta  
Reg. No. 46,145



**APPENDIX A**  
(37 C.F.R. § 1.192 (c)(9))

The claims on appeal read as follows:

5. (Previously Presented) The method of claim 23, wherein downloading the selected data sets comprises storing those of the selected data sets associated with the first information element in a buffer of a digital set top box and storing others of the selected data sets associated with others of the information elements in a memory of the digital set top box, wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data sets in the buffer of the digital set top box once the first information element is displayed.

6. (Cancelled)

7. (Previously Presented) The method of claim 23, wherein the first information element comprises data associated with the data stream information from the server.

8. (Previously Presented) The method of claim 23, wherein the first information element comprises advertising data selected in accordance with the user profile information.

9 - 22. (Cancelled)

23. (Previously Presented) A method, comprising:

periodically downloading from a server selected data sets according to user profile information, the selected data sets representing information elements for display to a user during switching events;

displaying a first one of the information elements in response to initiation of a first switching event; and

discontinuing the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display, unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements in which

case displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user.

24. (Previously Presented) The method of claim 23, wherein downloading the selected data sets comprises storing the selected data sets in a digital set top box in which the user profile information is stored.

25. (Previously Presented) The method of claim 23, wherein the user profile information is stored at the server.

26. (Previously Presented) The method of claim 23, wherein the user profile information is stored in a data source accessible by the server.

27. (Previously Presented) The method of claim 26, wherein the data stream information is also stored in the data source.

28. (Previously Presented) The method of claim 23, wherein the remote host comprises an Internet host and the interactive transaction session comprises an electronic shopping transaction.

29. (Previously Presented) The method of claim 23, wherein the user profile information is based on one or more of: the user's television viewing habits, the user's purchasing habits, and the user's use of one or more television services.

30. (Previously Presented) The method of claim 23, wherein the information elements comprise one or more of: advertisement, information regarding the data stream information, information regarding a television program, information regarding a television channel, personal information regarding the user, a segment of the data stream information, or local or regional information.

31. (Previously Presented) A system, comprising:

a server configured to provide a data stream transmission; and

a digital set top box configured to (i) periodically download from the server selected data sets according to user profile information, the selected data sets being included within the data stream and representing information elements for display to a user during switching events; (ii) display a first one of the information elements in response to initiation of a

first switching event; and (iii) discontinue the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display, unless the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements in which case displaying the data stream information from the server is delayed until termination of the interactive transaction session or expiration of a predetermined period of inactivity by the user.

32. (Previously Presented) The system of claim 31, wherein the digital set top box includes both a buffer and a memory and is configured to store those of the selected data sets representing a first one of the information elements in the buffer and others of the selected data sets representing other information elements in the memory.

33. (Previously Presented) The system of claim 32, wherein the digital set top box is further configured to replace those of the selected data sets representing the first one of the information elements in the buffer with at least some of the others of the selected data sets representing other information elements in the memory after displaying the first information element.

34. (Previously Presented) The system of claim 31, wherein the digital set top box includes an interface configured to receive signals from a remote control unit, the signal representing initiation of the first switching event, which corresponds to changing channels.

35. (Previously Presented) The system of claim 31, wherein the information elements comprise one or more of: advertisement, information regarding the data stream information, information regarding a television program, information regarding a television channel, personal information regarding the user, a segment of the data stream information, or local or regional information.

36. (Previously Presented) The system of claim 31, wherein the digital set top box is further configured to store the user profile information.

37. (Previously Presented) The system of claim 31, wherein the server is further configured to store the user profile information.

38. (Previously Presented) The system of claim 31, further comprising a data store unit accessible by the server and configured to store the user profile information.

39. (Previously Presented) The system of claim 38, wherein the data store unit is further configured to store the data stream information.